

# TOBACCO SETTLEMENT REVENUE **OVERSIGHT** C O M M I T T E E

Co-Chaired by:

Senator Cisco McSorley

Representative John L. Zimmerman



**Richard S. Larson, MD, PhD**

Executive Vice Chancellor  
Vice Chancellor for Research



**UNM Health Sciences Center  
plays a **critical role** in delivering  
**healthcare services, training** of  
health professionals, and contributing  
to New Mexico's **economy**.**

Employs over **9,079** individuals

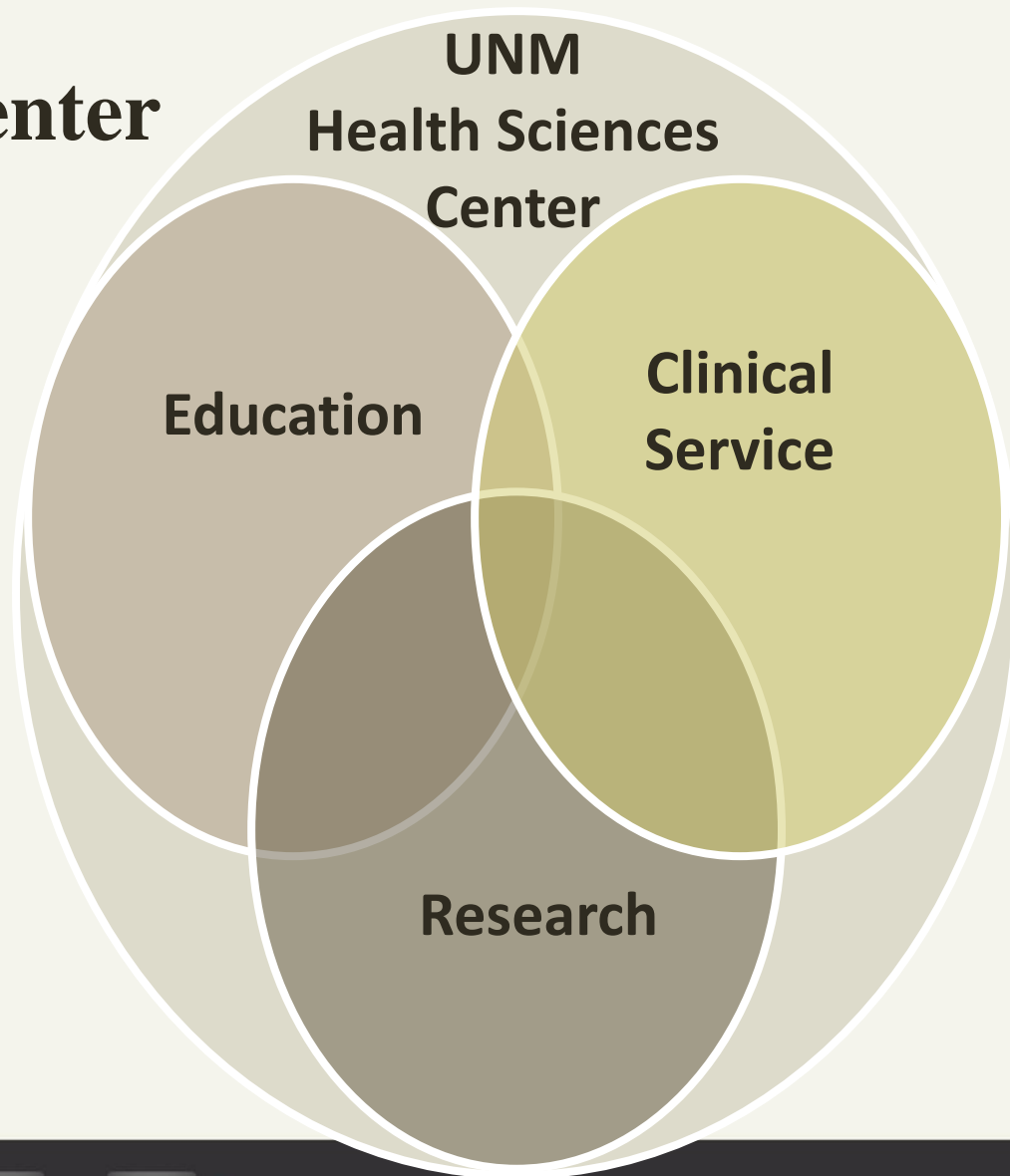
# UNM HSC: An Academic Health Center

Neither purely **academic institution**  
or **health care providers**

Compete in **health** and **marketplace**

Engage in **biomedical research**

Extensive **educational activities**



# UNM HSC: Critical Needs Programs for New Mexico



## Patient Care

Delivery of **comprehensive** and **unique** patient care

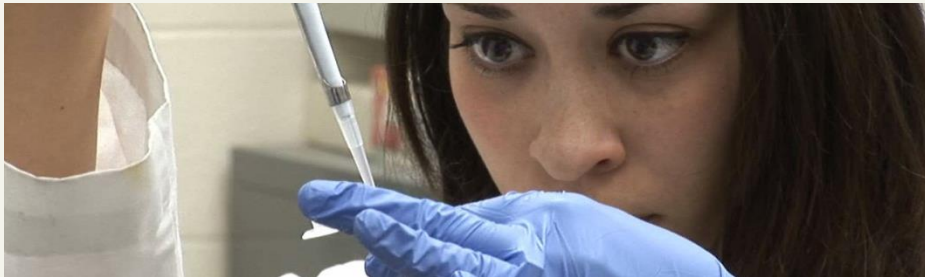
## Education

Growing the **next generation** of Health Care Professionals Workforce

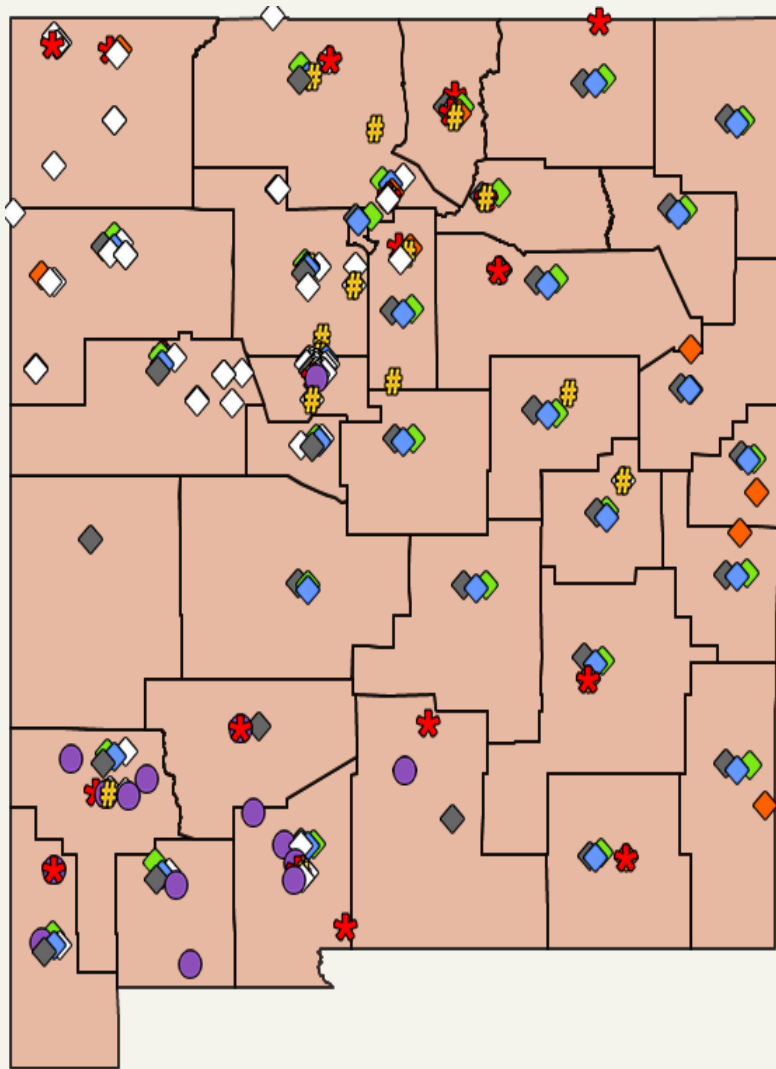


## Research

Creating new **knowledge** to increase the **quality of life** for New Mexicans



# Research in New Mexico Counties



# Health Extension Rural Offices (HEROs)

● Practice-Based Research Networks

\* Project ECHO

## Investigator-Led Community-Based Programs

◇ Programs with <10 locations

Programs with >10 locations:

◆ A Prospective Birth Cohort Study Involving Uranium Exposure in the Navajo Nation

◆ Project for New Mexico Children and Youth Who are Deaf-Blind

◆ IHS Center for Telehealth Excellent Project

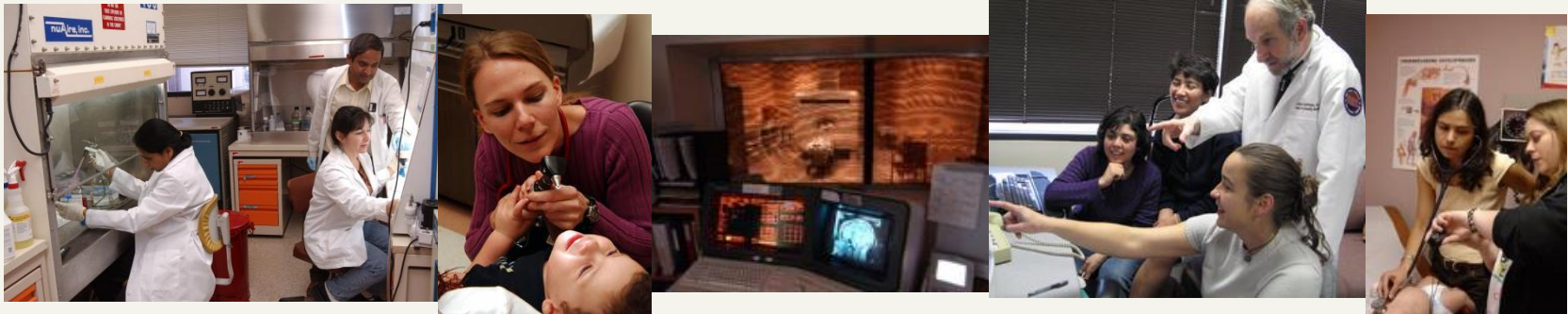
◆ Children's Medical Services Outreach Clinics Project

◆ New Mexico Youth Risk & Resiliency Survey



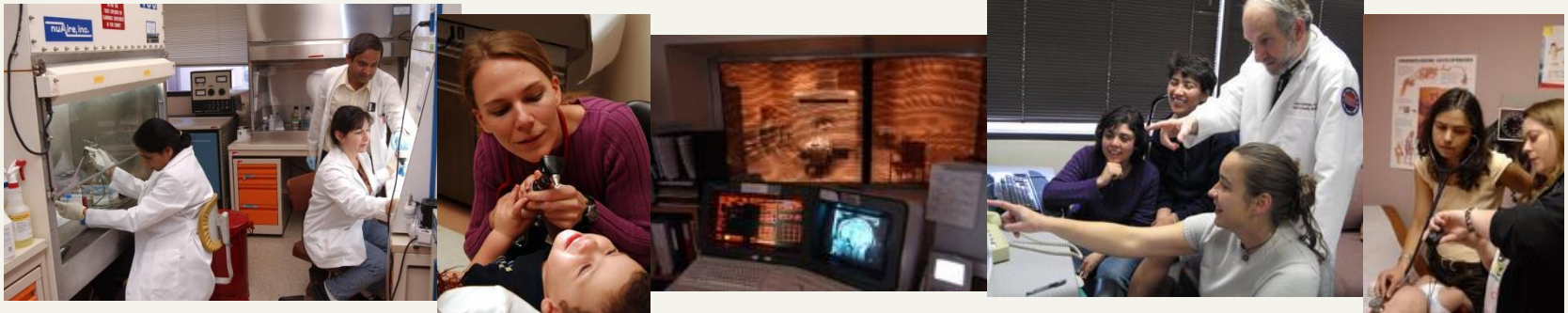
# Tobacco Settlement Statute

- Supports **clinical care, education, and research** into tobacco related illnesses
- Support of **biomedical research** with tobacco settlement funds
- Funded **other needed** health-related programs



# Cigarette Tax vs. Tobacco Settlement

- Tobacco Settlement supports **tobacco-related research and clinical care** at the entire UNM HSC
- Cigarette Tax (0.83%) supports **clinical care, education, and research** at the UNM Cancer Center



# Tobacco Related Illnesses

## Cancer

- Lung Cancer
- Esophagus Cancer
- Laryngeal Cancer
- Kidney Cancer
- Cervical Cancer
- Colorectal Cancer
- Leukemia/Lymphoma

## Brain & Behavioral Illnesses

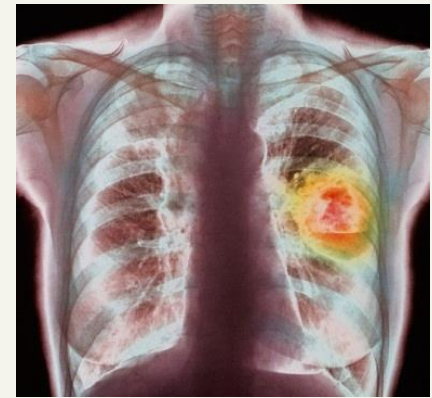
- Addiction
- Fertility in Women
- Impotence in Men
- SIDS
- Toxic Exposures

## Infectious Disease and Immunity

- Osteoporosis
- Delayed wound bleeding
- Palmoplantar pustulosis
- Psoriasis
- Increased incidence of back injury and broken bones

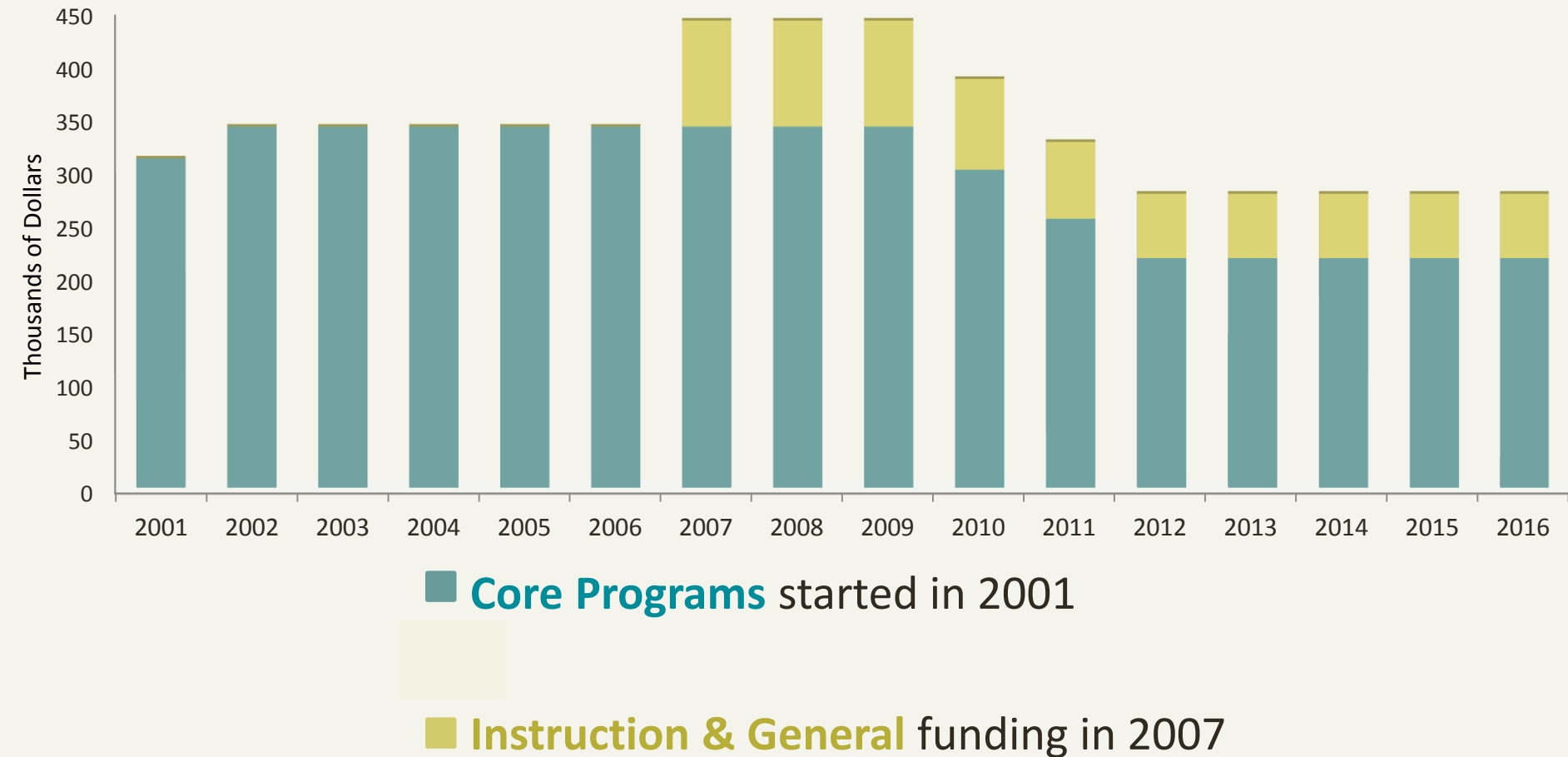
## Diabetes and Vascular Diseases

- Coronary Heart Disease
- High Cholesterol
- Stroke
- Diabetes
- Emphysema
- Asthma
- Atherosclerosis





# Changes Over the Last Decade



# Programs Supported by Tobacco Settlement Funds

## Core Projects

- NM Poison & Drug Information Center
- Pediatric Oncology Program
- *UNM HSC Biomedical Research (Genomics, Biocomputing & Environmental Health Research)*

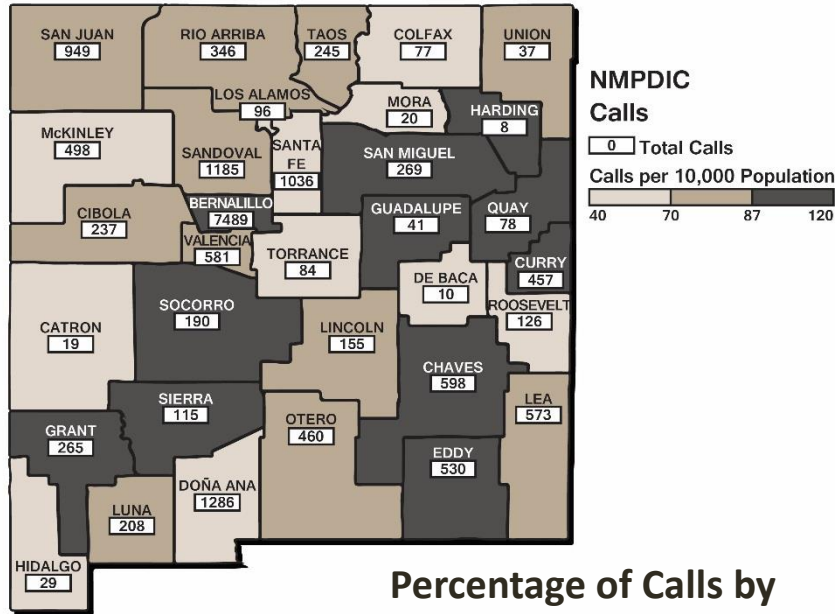


## Instruction & General (I&G) Funds

- *Specialty Education Trauma*
- *Specialty Education Pediatrics*
- *Instruction and General Line Item (added in 2007)*

# NM Poison & Drug Information Center

NMPDIC Calls by County, FY15



Percentage of Calls by Relationship to Patient



## Benefit

- The *only* poison center in New Mexico
- *Improves New Mexicans' health* by reducing morbidity and mortality associated with poisoning and by encouraging proper use of medications
- *Reduces healthcare costs* by helping citizens identify when to safely be treated at home and by consulting with healthcare teams for hospitalized patients
- Reducing hospitalizations saved ~\$36M
- Receives ~30,000 calls per year
- Provides professional education statewide

# Pediatric Oncology Program

## Benefit

- The center of excellence for diagnosis & care of children with cancer
- The only provider of tertiary care for children with cancer in New Mexico
- Consults on young adults with pediatric cancers
- Over 300 active patients with 4,500 visits

## Use of Funds

- Provides support to patients and their families via counseling
- Faculty positions are supported as well



# History of I&G Funding from Tobacco Settlement Funds

- Began in 2007
- Legislature funded HSC I&G General Fund requests from TSF
- Supports trauma care, primary care, and faculty retention



With faculty compensation rates below the national average, the School of Medicine (SOM) is having difficulty retaining faculty physicians due to salary compaction. The SOM must be able to hire and retain quality faculty physicians as they are the key to educating our medical students, while simultaneously providing care to New Mexicans.



# Funds Committed to I&G Supplement

## Benefit

- Support additional faculty positions in pediatrics and trauma medicine
- Ensure that faculty members have sufficient time to continue teaching despite and ever-increasing clinical patient load



## Programs

- Specialty Education in Pediatrics
- Specialty Education in Trauma HSC
- I&G Support for Education and Retention

# UNM HSC Biomedical Research

## Benefit

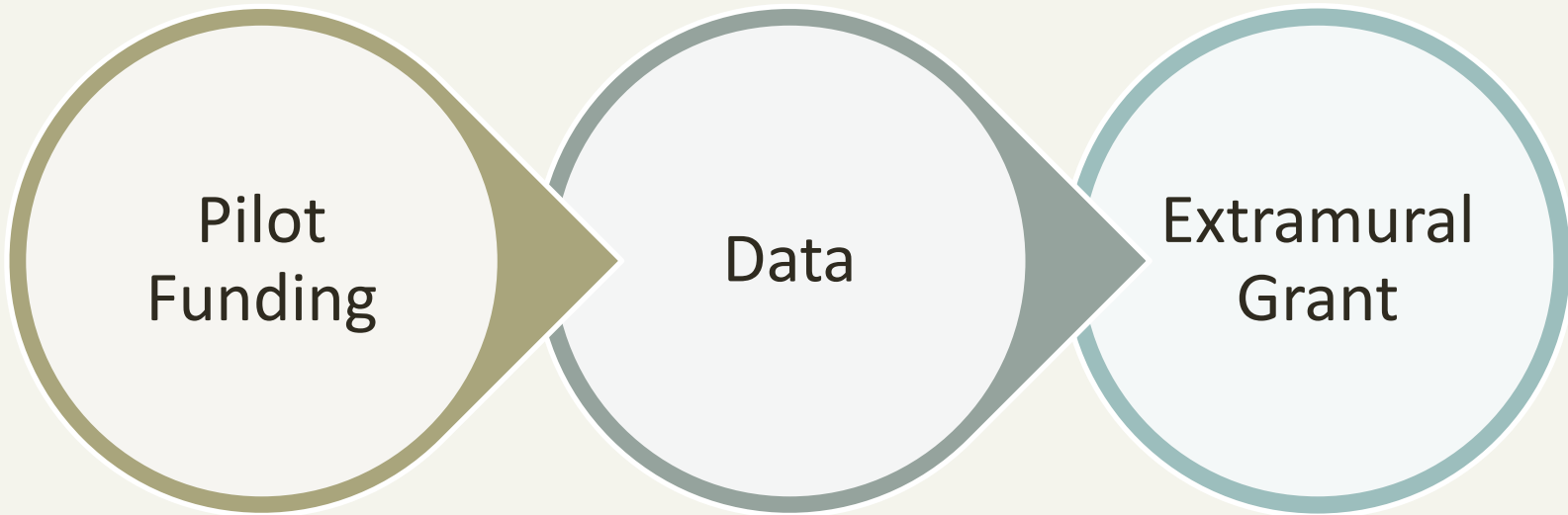
- Pilot funds
- “Core” support
- Accelerating the translation of basic research into clinical practice



(Now known as UNM Comprehensive Program for Clinical and Basic Research, and Prevention of Tobacco-Related Illnesses in New Mexico)

# Pilot Funding

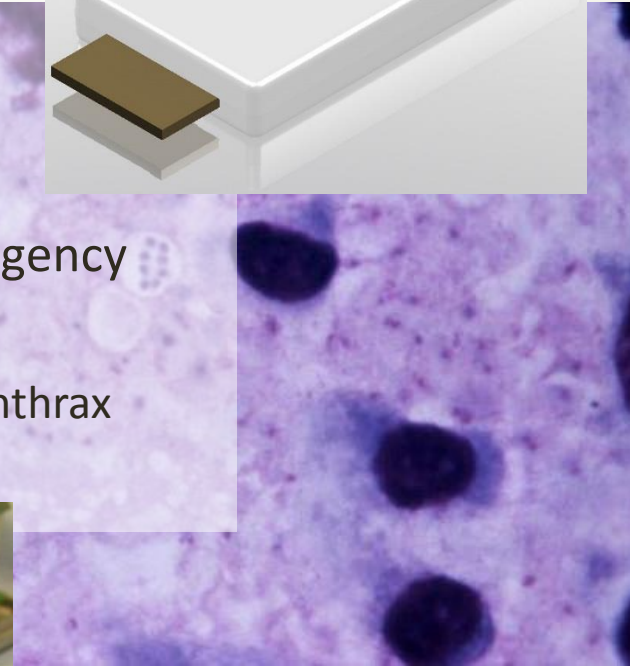
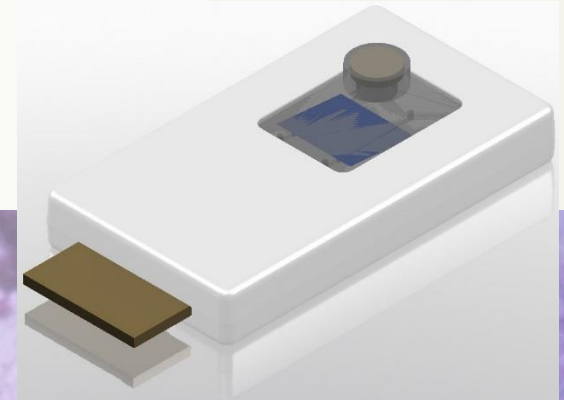
- Pilot funding is the primary mechanism for obtaining federal support



- Pilot funding returns \$8-\$20 per \$1 invested.

# Example of Pilot Funding

- Idea
  - Can we develop a handheld device to rapidly diagnose disease?
- Required Investment
  - \$50K Pilot funds (2003)
  - Core facilities supported by Tobacco Settlement
- Result
  - Initial data obtained with Sandia National Laboratories
  - Grant application (\$1.3M for 8yr; supports 10 jobs/yr)
- Chief Scientist Award from the Defense Intelligence Agency
- Public-Private Partnership
  - Adapted for hepatitis B and C, HIV, sin nombre virus, anthrax
  - Potential to save tens of thousands of lives





# Intranasal Insulin in Smoking Cessation

**Insulin may be able to help smokers quit.**

Dr. Hamidovic is testing a novel treatment for tobacco dependence and withdrawal symptoms associated with smoking relapse. Intranasal administration of insulin may relieve withdrawal by acting on neuroreceptors associated with learning, memory, appetite, and mood.



Ajna Hamidovic, PharmD





# Cardiovascular Disease in Smokers



Mary Walker, PhD



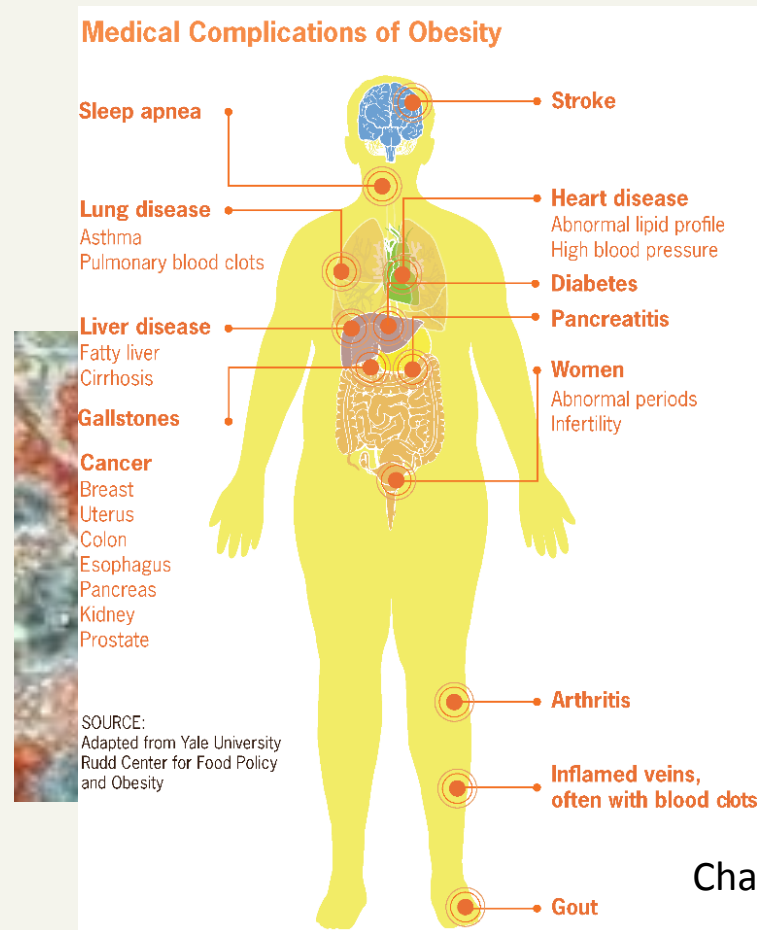
Smoking is associated with a decrease in omega-3 fatty acids, which have cardiovascular benefits. Dr Walker is investigating this link to better understand the risks of smoking and potential cardiovascular disease treatments.



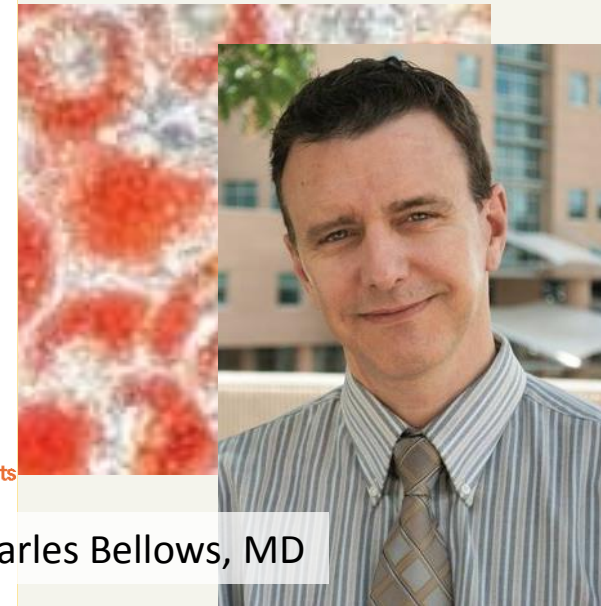
**Smokers' risk of cardiovascular disease may be linked to omega-3 fatty acids.**

# Adipose Stromal Cells in Cancer Prognosis

Dr. Bellows is researching adipose stromal cells as a biomarker predicting prognosis for obese patients with colon cancer, and a potential link between weight control and cancer survival. This could create an easy, affordable, and noninvasive screen for diagnosis and prognosis of cancer.



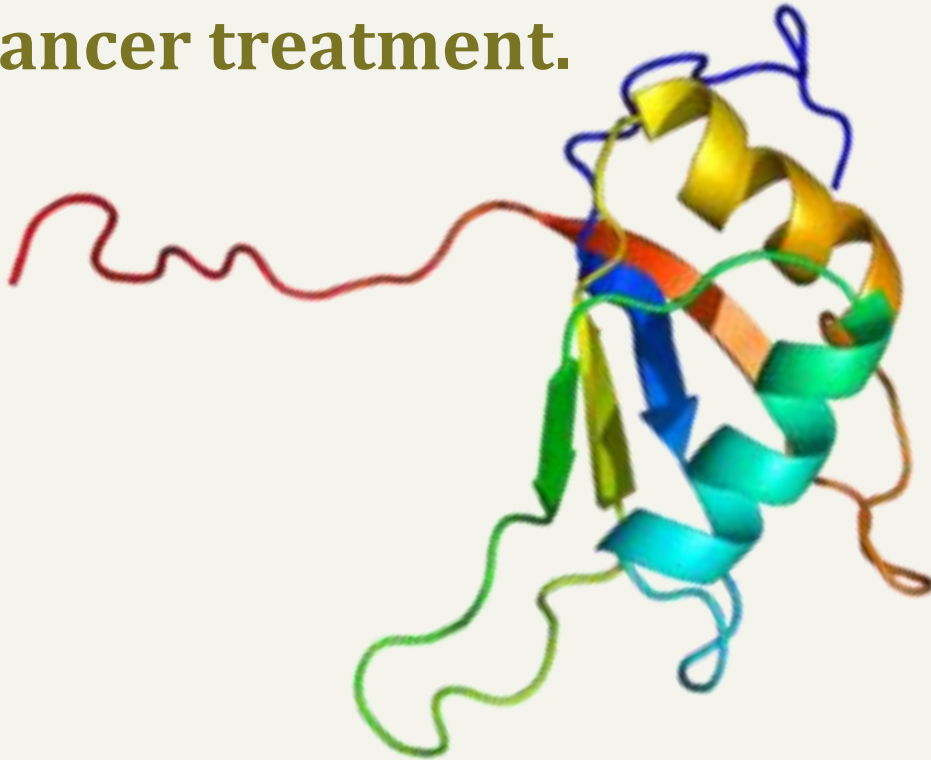
**Obesity affects  
colon cancer  
prognosis.**



Charles Bellows, MD

# Predicting Breast Cancer Outcomes

**Predicting outcomes and response to therapy is critical in cancer treatment.**



Rebecca Hartley, PhD

Dr. Hartley is working to understand how RNA binding proteins can be manipulated to help treat breast cancer. The cold-inducible RNA binding protein may be useful in the future as a biomarker to predict outcome or response to therapy in breast cancer.

# Core Facilities

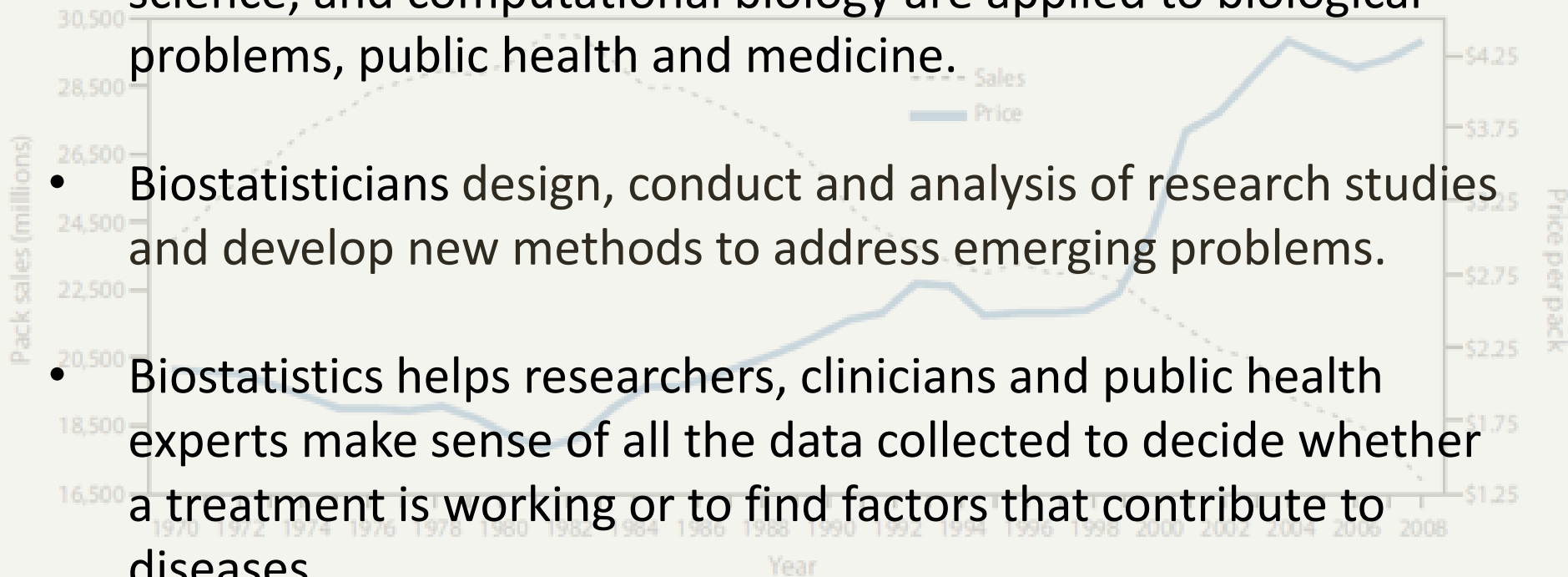
- Shared facilities that provide service to entire HSC community (genomics and biostatistics)
- Provide access to equipment that is otherwise unavailable
  - **Research that would otherwise be impossible**





# Core Facilities: Biostatistics

- Biostatistics is an exciting field where mathematics, computer science, and computational biology are applied to biological problems, public health and medicine.



- Biostatisticians design, conduct and analysis of research studies and develop new methods to address emerging problems.
- Biostatistics helps researchers, clinicians and public health experts make sense of all the data collected to decide whether a treatment is working or to find factors that contribute to diseases.



# Economic Impact

## Tobacco Settlement Funding

Jobs      Jobs Created **55**

Indirect Impact



Indirect  
Economic  
Impact  
**\$5.12 M**

Direct Impact



Leveraged  
Pilot  
**\$2.22 M**  
Pilot  
**\$317 K**  
Non-pilot  
**\$662 K**  
FTE  
**9 → 55**

## Total Research Funding

Jobs            Jobs Created **2,060**

Indirect Impact



Indirect  
Economic  
Impact  
**\$257.6 M**

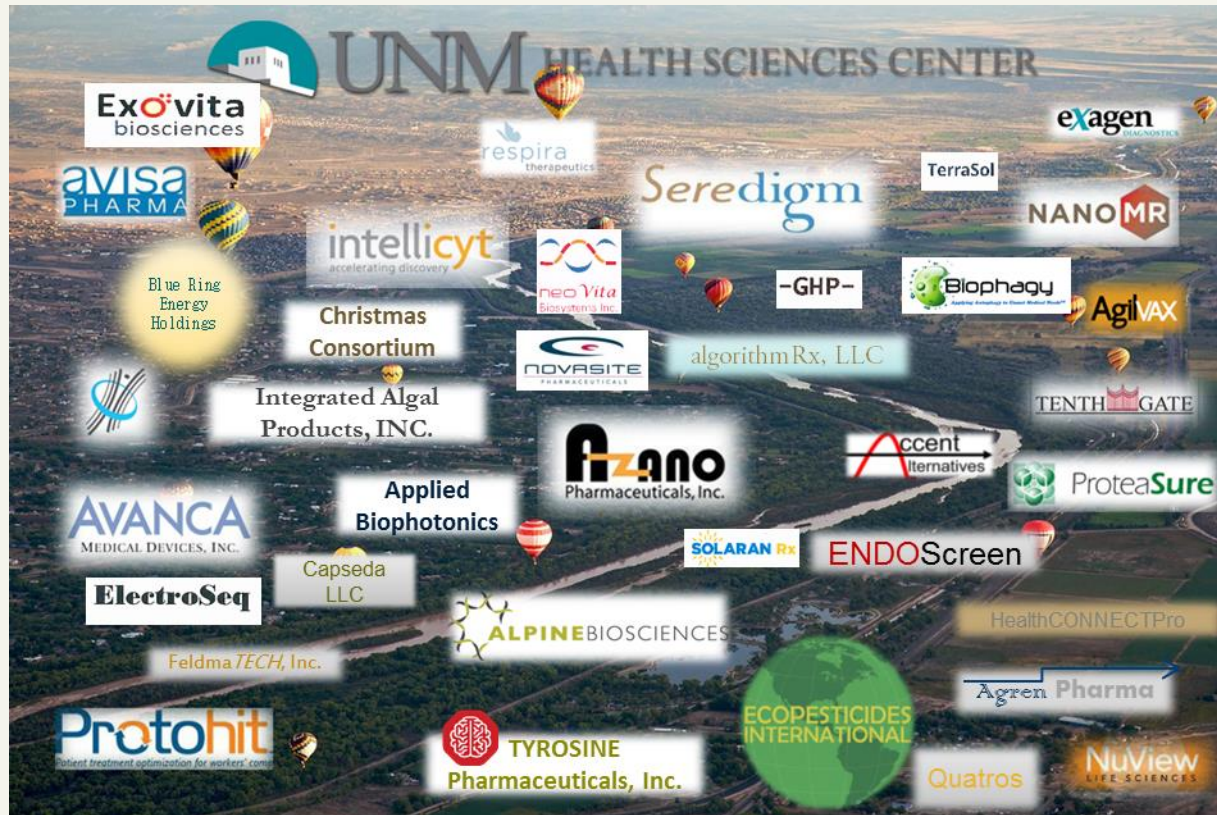
Direct Impact



Direct  
Economic  
Impact  
**\$161 M**  
FTE  
**1,515**  
**(55 included)**

# Commercialization

- Since 2004, 38 new private companies were either spun off from the university or used university technology to start up.

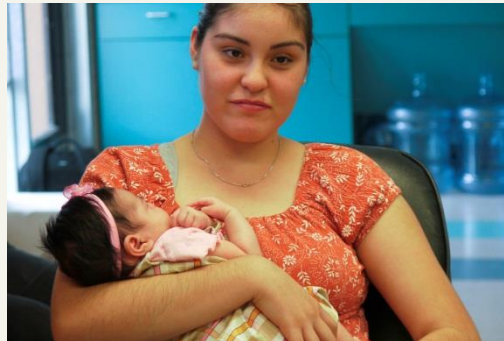


# Threats to the Tobacco Settlement Fund

- Legal challenges by manufacturers
  - NM found “not diligent” by arbitration panel for 2003, reducing settlement by \$39 million
- Fund sustainability
- In the face of these, the HSC highly values efforts by our legislators to build and maintain permanent fund reserves

# What Loss of Tobacco Settlement Means to New Mexico

- Risk of pending litigation
- Loss of patient care services
- Loss of technology to provide services and conduct research
- Loss of jobs (leveraged)
- Loss of economic activity
- Progressive shift to general fund





# Questions?



# E-Cigarettes

## Not a Healthy Alternative

- Not a smoking cessation device
  - Risk of addiction for those who don't already smoke
  - Continuation of addiction for smokers
    - Majority of e-cigarette users continue to smoke cigarettes
- Complete health effects unknown
  - Lack of regulation compared to traditional nicotine replacement
  - E-Liquid contains known carcinogens
  - Unknown long-term effects from inhalation of carrier liquid (propylene glycol, glycerine, polyethylene glycol)
- Other risks
  - E-Liquid toxicity
    - Exposure to e-liquid makes up an increasing proportion of nicotine-related calls to poison centers
    - E-Liquid exposures associated with adverse health effects more often than cigarettes
    - Containers not child-proof